

**REMARKS**

Without acquiescing in any rejection, claims 1-94 are canceled without prejudice or disclaimer. Applicants present claims 95-102 to focus on certain embodiments of the invention. Support for the new claims can be found through the specification as filed. See, for example, page 3, lines 7-12; page 4, lines 1-7; page 5, lines 19-26; page 7, line 27 to page 8, line 10; page 15, lines 25-31; page 17, lines 25-28; page 24, lines 10-16; page 25, lines 4-9; page 27, line 17 to page 28, line 2; page 30, lines 16-29; page 31, lines 4-20; and page 32, lines 3-24.

Applicants wish to thank the examiner for the courtesies extended during the interview conducted on July 29, 2008. Applicants present a new claim set and a declaration from Dr. Muratoglu, including presentation slides. An information disclosure statement also is provided, which includes material safety data sheets (MSDSs) for vitamin E (an 'oily' liquid), beta carotene (a crystalline solid) and hydrogen gas (a highly flammable gas). The MSDSs show that the properties of each molecule differ from one another. Accordingly, as shown in the MSDSs and as further demonstrated in the references of record, these molecules are not substitutes for one another.

Applicants claimed invention is not taught or suggested by the prior art. Dr. Muratoglu's declaration accompanying this amendment discusses problems that were known and unknown in the art, and explains the inventive solutions to these problems provided by the claimed invention. Applicants invite the examiner's attention to this declaration, which explains, among other things, the problems in the field, the limitations of prior art practices, and applicants' inventive solutions to the problems.

Turning to a summary discussion of the prior art, Lidgren, Parth and Shaffner (U.S. counterpart provided herewith, EP previously submitted) disclose blending UHMWPE powder with vitamin E, consolidating it, and then subjecting that consolidated blend to irradiation. This approach both inhibits cross-linking needed for wear resistance and destroys the potency of the vitamin E needed for oxidation resistance. See Muratoglu declaration at paragraphs 23 and 25, and slides 19 and 20. Higgins' use of pressurized and highly flammable H<sub>2</sub> gas will not provide a more uniform distribution and maintain a


long-term presence needed to deal with trapped free radicals to prevent oxidation over time (decades). These trapped free radicals are unable to readily recombine with other free radicals in the irradiated UHMWPE and thus persist for years and can react with oxygen to form peroxy free radicals. See Muratoglu declaration at paragraphs 5, 11 and 26. Hahn's use of beta carotene dissolved in various solvents, and his observation of a beta carotene presence on UHMWPE wear particles, not only does not suggest applicants' invention that utilizes vitamin E, but actually discourages one from using antioxidants generally. See Muratoglu declaration at paragraphs 27-30. See *In re Gurley*, 27 F.3d 551, 553, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994) (stating, "[a] reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant"). Additionally, Hahn does not irradiate. Finally, none of the references teach annealing.

In sum, the references neither teach nor suggest the claimed invention, and therefore the claims should be advanced towards allowance.

**REQUEST**

Applicants submit that claims 95-102 are in condition for allowance and request consideration to that effect. The Examiner is invited to contact the undersigned at (202) 416-6800 should there be any questions.

Respectfully submitted,

  
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August 6, 2008

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